

Appendix 7-B

CWP Retrofit Reconnaissance Investigation Checklist

This Appendix provides a *Retrofit Reconnaissance Investigation (RRI)* checklist form, developed by the Center for Watershed Protection (CWP), that can be used to conduct retrofit reconnaissance in your community. This form was developed in conjunction with the CWP's Manual entitled *Urban Stormwater Retrofit Practices* (2007).

Retrofit Reconnaissance Investigation

RRI

WATERSHED:		SUBWATERSHED:		UNIQUE SITE ID:	
DATE:		ASSESSED BY:		PICTURES:	
GPS ID:		LMK ID:		LAT:	
				LONG:	
SITE DESCRIPTION					
Name: _____					
Address: _____					
Ownership: <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown If Public, Government Jurisdiction: <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage			On-Site		
<input type="checkbox"/> Existing Pond <input type="checkbox"/> Above Roadway Culvert <input type="checkbox"/> Below Outfall <input type="checkbox"/> In Conveyance System <input type="checkbox"/> In Road ROW <input type="checkbox"/> Near Large Parking Lot <input type="checkbox"/> Other: _____			<input type="checkbox"/> Hotspot Operation <input type="checkbox"/> Individual Rooftop <input type="checkbox"/> Small Parking Lot <input type="checkbox"/> Small Impervious Area <input type="checkbox"/> Individual Street <input type="checkbox"/> Landscape / Hardscape <input type="checkbox"/> Underground <input type="checkbox"/> Other: _____		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____ Imperviousness ≈ _____ % Impervious Area ≈ _____			Drainage Area Land Use: <input type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial <input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related <input type="checkbox"/> Townhouses <input type="checkbox"/> Park <input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped <input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
Notes:					
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
Existing Head Available and Points Where Measured:					

Retrofit Reconnaissance Investigation

RRI**PROPOSED RETROFIT****Purpose of Retrofit:**

- ☐ Water Quality ☐ Recharge ☐ Channel Protection ☐ Flood Control
☐ Demonstration / Education ☐ Repair ☐ Other: _____

Retrofit Volume Computations - Target Storage:**Retrofit Volume Computations - Available Storage:****Proposed Treatment Option:**

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☐ Bioretention
☐ Filtering Practice ☐ Infiltration ☐ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:**SITE CONSTRAINTS****Adjacent Land Use:**

- ☐ Residential ☐ Commercial ☐ Institutional
☐ Industrial ☐ Transport-Related ☐ Park
☐ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☐ Slope ☐ Space
☐ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☐ Other: _____

Conflicts with Existing Utilities:

- ☐ None
☐ Unknown

Yes Possible

- | | | |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Sewer |
| <input type="checkbox"/> | <input type="checkbox"/> | Water |
| <input type="checkbox"/> | <input type="checkbox"/> | Gas |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric to Streetlights |
| <input type="checkbox"/> | <input type="checkbox"/> | Overhead Wires |
| <input type="checkbox"/> | <input type="checkbox"/> | Other: _____ |

Potential Permitting Factors:

- | | | |
|------------------------------|-----------------------------------|---------------------------------------|
| Dam Safety Permits Necessary | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Wetlands | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to a Stream | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Floodplain Fill | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Forests | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| Impacts to Specimen Trees | <input type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |

How many? _____

Approx. DBH _____

Other factors: _____**Soils:**

- | | | |
|---|------------------------------|-----------------------------|
| Soil auger test holes: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Evidence of poor infiltration (clays, fines): | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Evidence of shallow bedrock: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Evidence of high water table (gleying, saturation): | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Retrofit Reconnaissance Investigation

RRI

SKETCH

Retrofit Reconnaissance Investigation

RRI**DESIGN OR DELIVERY NOTES****FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT**

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Confirm soil types |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS**SITE CANDIDATE FOR FURTHER INVESTIGATION:**☐ YES ☐ NO ☐ MAYBE**IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):**☐ YES ☐ NO ☐ MAYBE**IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):**☐ YES ☐ NO ☐ MAYBE

If YES, TYPE(S): _____